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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,066	07/05/2001	Giacomo Mirelli	Q65321	1350
7590 12/07/2004				
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3213			EXAMINER KOSOWSKI, ALEXANDER J	
			ART UNIT 2125	PAPER NUMBER

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,066

Applicant(s)

MIRELLI ET AL.

Examiner

Alexander J Kosowski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-16 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/3/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

- 1) Claims 1-16 are presented for examination.

Claim Objections

- 2) Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

- 3) Claims 1 and 4 are objected to because of the following informalities:

Referring to claim 1, line 8, the phrase "generating / receiving, through said one or more controllers, messages" should read --generating / receiving messages, through said one or more controllers--.

Referring to claim 4, lines 1-2, the word "of" should be added after the phrase "wherein it further comprises the steps".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

- 4) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 5) Claims 5 and 8 are rejected under 35 U.S.C. 112.

Regarding claim 5, line 4, the word "namely" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 5 recites the limitation "each data item" in line 3. There is insufficient antecedent basis for this limitation in the claim.

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Claim 8 recites the limitation "said concentrator" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7) Claims 1, 7, 10, 13 and 15-16 are rejected under 35 U.S.C. 102(b) as being unpatentable by Goto (U.S. Pat 4,988,989).

Referring to claim 1, Goto teaches a method comprising the steps of: controlling each peripheral unit of a device by means of a controller of one or more controllers (col. 3 lines 30-35 and Figures 1-2); identifying a plurality of data items which have to be handled in order to carry out control and supervision of the device (col. 3 lines 60-68); and generating/receiving, through said one or more controllers, messages, each message containing one or more data items to be handled (col. 3 lines 45-50 and col. 4 line 67 through col. 5 line 19), wherein the method further comprises the step of collecting said controllers through a common bus (col. 3 lines 49-51) and wherein the format of said messages generated by/received from the controllers is pre-established and substantially independent of the size of data contained therein (col. 4 line 67 through col. 5 line 19 and Figure 5).

Referring to claim 7, Goto teaches a step of providing each of the controllers with a computer software program, said software program comprising a first control module, which is the same for all the controllers and independent of the handled data; a second processing module

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for each single data item and which is usable in any controller that handles such a data item; and a platform module which is the same for all the hardware of the same type, capable of driving the peripheral units (col. 3 lines 46-68, whereby memory is loaded with a program and a processor runs the program to control peripheral units).

Referring to claim 10, Goto teaches an apparatus comprising: one or more controllers, each peripheral unit being controlled through a controller (col. 3 lines 30-35 and Figures 1-2), and means for generating/receiving, through said controllers, messages each containing one or more of said data items to be handled (col. 3 lines 45-50 and col. 4 line 67 through col. 5 line 19), wherein it further comprises a common bus for connecting said controllers together (col. 3 lines 49-51), and wherein the format of said messages generated/received by the controllers is pre-established and substantially independent of the size of data contained therein (col. 4 line 67 through col. 5 line 19 and Figure 5).

Referring to claim 13, see rejection of claim 7 above.

Referring to claims 15-16, the method and apparatus taught above by Goto is implemented by a computer processor reading from a computer readable medium (col. 3 lines 46-68, whereby memory is loaded with a program and a processor runs the program to control peripheral units)

Claim Rejections - 35 USC § 103

8) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9) Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goto.

Referring to claim 8, Goto teaches the above. However, Goto does not explicitly teach a step of disconnecting a concentrator once a start-up step is finished.

Examiner notes that it would have been obvious to one skilled in the art at the time the invention was made to disconnect a supervising controller once start-up is finished in the invention taught by Goto since the supervising controller could be used to send initial data to the controller and would then be able to free up extraneous bandwidth caused by unnecessary messages by disconnecting itself when required.

10) Claims 2-3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto, further in view of Matsutani (U.S. Pat 5,479,406).

Referring to claims 2-3, Goto teaches the method above. However, Goto does not explicitly teach the step of identifying a plurality of data items which have to be handled comprises the step of arranging all data in storage registers having the same size, each data item being univocally identified by an identifier of a register containing it and by an identifier that identifies a position of the data item inside the register itself, nor the step of identifying a subset of data arranged in registers, said data subset being composed of one or more registers and corresponding to data for control/supervision of a partially equipped device.

Matsutani teaches a method for controlling peripheral units with a controller whereby data is stored in equal registers, the data contains identifiers, and the data corresponds to controls for a device (col. 1 lines 52-61 and col. 3 lines 44-57).

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Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize registers and identifiers for data related to controlling devices in the invention taught by Goto since this would allow a master controller to obtain changes in data related to the controlled peripheral (Matsutani, col. 1 lines 40-41), which would reduce the amount of communication necessary and therefore reduce processing load (Matsutani, col. 2 lines 20-27).

Referring to claim 11, see rejection of claim 2 above.

11) Claims 4-5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto, further in view of Korowitz (EP 0772107 A2).

Referring to claims 4-5, Goto teaches the above. However, Goto does not explicitly teach providing a concentrator or supervision entity, said concentrator being connected to said one or more controllers by said common bus; and providing said concentrator with information concerning said data and their arrangement in registers, defining use relations between each data item and at least one controller, and specifying an information flow direction, namely a supervision entity producing or using said data item.

Korowitz teaches a method for controlling a peripheral using a controller whereby the system contains a supervision entity connected by a bus and capable of receiving data (col. 1 line 55 through col. 2 line 35 and Figure 1), whereby a supervision entity is provided with specific data from certain controllers (col. 4 lines 35-40).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize a supervision entity capable of obtaining controller specific data in the invention taught by Goto since this would allow for a single controller to maintain overall

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control of an operation (Korowitz, col. 4 lines 16-18), and since the number of controlled devices in the system can be easily increased and decreased (Korowitz, col. 2 lines 33-36).

Referring to claim 12, see rejection of claim 4 above.

12) Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto, further in view of Schmutz (U.S. PGPUB 2001/0031621).

Referring to claim 9, Goto teaches the above. However, Goto does not explicitly teach that said device is a device for receiving, transmitting and processing signals in radio relay systems.

Schmutz teaches a radio relay system which utilizes controllers on a communications bus (Paragraphs 0043-0044).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the method taught by Goto in a radio relay system since it is common to have master and slave controllers associated with transceivers in radio relay systems (Schmutz, Paragraph 0044).

Referring to claim 14, see rejection of claim 9 above.

Conclusion

13) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander J Kosowski whose telephone number is 571-272-3744. The examiner can normally be reached on Monday through Friday, alternating Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the

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organization where this application or proceeding is assigned is (703) 872-9306. In addition, the examiner's RightFAX number is 571-273-3744.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Alexander J. Kosowski
Patent Examiner
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A handwritten signature in black ink, appearing to read 'L. P. Picard', with a large, stylized loop at the end.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100